### Site activities IVO Gold King Mine Release

#### 10SEP2015

Agency/Organization	Number of Personnel
EPA	03
USCG	06
ER	09
START	03
Harrison Western	04
Rain for Rent	02
Goff Engineering	02
Visitors	00
Total Personnel	29

#### - GLADSTONE STAGING AREA

- Utilizing USCG Strike Team personnel to monitoring incoming calls, emails, and radio traffic.
- Check-in site visitors.
- ER contractors continue completed setup on the additional trailer located at the Gladstone Staging Area.
- Afternoon meeting with EPA OSC Steve Way, EPA Safety officer Brian Kovak, USCG Strike
  Team MK1 Andrew Brannon, concerning site safety roles and objectives.

## -GLADSTONE WASTE ROCK RELOCATION

- Finalizing the waste rock removal plan.
- Installation of the bypass piping system to divert the Cement Creek to the Gladstone Settling Ponds is nearly completed. The installation of the bypass piping system will allow the contractors to access the waste rock in Cement Creek.
- Began sediment removal from the Emergency Ponds in preparation for waste rock removal operations.

#### -GLADSTONE SETTLING PONDS

• Removal of large/sharp rocks prior to pond lining installation on the upper pond to help prevent possible tears or ruptures in the lining.

### -WATER TREATMENT SITE

 Lime addition to Gold King Mine waste water runoff prior to reaching settling ponds is ongoing with 8lbs. of lime added every nine minutes via automatic hopper operated by EER contractor.

- Gold King Mine water is still being diverting to the Red & Bonita settling ponds.
- Water quality parameters are being collected at 05 locations two times daily including the Gold King adit discharge, the Red & Bonita settling pond discharge, and in Cement Creek.

#### -GOLD KING MINE OPERATIONS

- Utilizing USCG Strike Team member to conduct contractor oversight of all bolting and meshing operations.
- Bolting and wire mesh has been completed on 9/9/15 at the entry of the adit/portal to the Gold King Mine.
- Bolting and mesh operations to continue inside the mine.
- Preparations are being made for the use of shot-crete. A 500 gallon water tank and heater system will be installed at the Gold King Mine site. Shot-crete is conveyed through a hose and pneumatically projected at high velocity onto a surface, as a construction technique. It is reinforced in this case steel mesh and will be used for stabilization of the adit/portal to the Gold King Mine.
- Goff Engineering is conducting survey of Gold King Mine portal.

# -Water Quality Testing

- Water quality param eters collected at 05 locations two times daily by EPA START contractors.
- USCG Strike Team personnel are conducting pH readings at the discharge of the Red and Bonita ponds at 2100 and 0200 daily.
- Flow Rate of 556 GPM with a pH of 2.97 was recorded at 0900 from the Gold King Mine adit portal.
- Flow Rate of 535 GPM with a pH of 3.88 was recorded at from the Gold King Mine adit portal in the evening.
- pH at R&B discharge pH is 5.83 morning, pH is 5.26 evening.